

1617

PATENT
Customer No. 22,852
Attorney Docket No. 06725.0446-00

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCE

In re Application of:)
Serge RESTLÉ et al.) Group Art Unit: 1617
Application No.: 09/360,521) Examiner: L. Wells
Filed: July 23, 1999)
For: AMINATED SILICONE)
DETERGENT COSMETIC)
COMPOSITION AND USE)

Commissioner for Patents
Washington, DC 20231

Sir:

TRANSMITTAL OF APPEAL BRIEF (37 C.F.R. § 1.192)

Transmitted herewith in triplicate is the APPEAL BRIEF in this application with respect to the Notice of Appeal filed on January 28, 2003.

This application is on behalf of

☐ Small Entity ☒ Large Entity

Pursuant to 37 C.F.R. 1.17(f), the fee for filing the Appeal Brief is:

☐ \$160.00 (Small Entity)
☒ \$320.00 (Large Entity)

TOTAL FEE DUE:

Notice of Appeal Fee	\$320.00
Extension Fee (if any)	\$0
Total Fee Due	\$320.00

☒ Enclosed is a check for \$320.00 to cover the above fees.

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PETITION FOR EXTENSION. If any extension of time is necessary for the filing of this Appeal Brief, and such extension has not otherwise been requested, such an extension is hereby requested, and the Commissioner is authorized to charge necessary fees for such an extension to our Deposit Account No. 06-0916. A duplicate copy of this paper is enclosed for use in charging the deposit account.

FINNEGAN, HENDERSON, FARABOW,
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Dated: March 27, 2003

By: 

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PATENT
Customer No. 22,852
Attorney Docket No. 05725.0446-00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:

Serge RESTLÉ et al.

Application No.: 09/360,521

Filed: July 23, 1999

For: AMINATED SILICONE DETERGENT
COSMETIC COMPOSITION AND USE

Group Art Unit: 1617

Examiner: L. Walters

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4-11-03

Commissioner for Patents
Washington, DC 20231

Sir:

APPEAL BRIEF UNDER 37 C.F.R. § 1.192

In support of the Notice of Appeal filed January 28, 2003, and pursuant to 37 C.F.R. § 1.192, Appellants present in triplicate this brief and enclose herewith a check for the fee of \$320.00 required under 37 C.F.R. § 1.17(c).

This appeal is in response to the final rejection dated July 30, 2002, of claims 1-46, which are set forth in the attached Appendix. If any additional fees are required or if the enclosed payment is insufficient, Appellants request that the required fees be charged to Deposit Account No. 06-0916.

I. Real Party In Interest

L'Oréal S.A. is the assignee of record.

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II. Related Appeals and Interferences

Appellants, Appellants' undersigned legal representative, and the assignee know of no other appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. Status Of Claims

Claims 1-46 are pending in this application. No claims have been allowed.

Claims 1-46 remain rejected under 35 U.S.C. § 103.

IV. Status Of Amendments

All amendments have been entered, and no amendments under 37 C.F.R.

§ 1.116 have been filed.

V. Summary Of Invention

The present invention relates to novel cosmetic compositions with improved properties intended for simultaneous cleaning and conditioning of keratinous substances, such as the hair, and comprising (A) anionic and amphoteric surfactants and (B) an aminated silicone having an amine number of greater than or equal to 0.4 meq/g. (Specification, page 1, lines 1-7; claim 1.) In one aspect of the invention, the amphoteric/anionic surfactant ratio by weight is greater than or equal to 0.2:1.

(Specification, page 4, ln. 6-7; claim 1.)

VI. Issues

A. Obviousness-Type Double Patenting

1. Whether claims 1-46 are unpatentable under the doctrine of obviousness-type double patenting over U.S. Patent Nos. 6,028,041, 6,159,914, 6,162,424, and 6,290,944¹, and copending Application No. 09/759,165.

B. Rejections under 35 U.S.C. § 103

1. Whether claims 1-46 are unpatentable over WO 98/03155 in view of U.S. Patent No. 5,567,428 to Hughes in further view of U.S. Patent No. 5,476,649 to Natio.
2. Whether claims 1-46 are unpatentable over U.S. Patent No. 6,162,424 to Decoster in view of U.S. Patent No. 5,567,428 to Hughes and U.S. Patent No. 5,476,649 to Natio.
3. Whether claims 1 and 33 are unpatentable over U.S. Patent No. 6,159,914 to Decoster in view of U.S. Patent No. 5,476,649 to Natio.

VII. Grouping Of Claims

Each claim of this patent application is separately patentable, and upon issuance of a patent will be entitled to a separate presumption of validity under 35 U.S.C. § 282. For convenience in handling this Appeal, however, for each ground of rejection the claims rejected on that ground will be grouped in one group. Thus, pursuant to 37 C.F.R. § 1.192(c)(7), in this Appeal, for each ground of rejection the claims rejected on that ground will stand or fall together.

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¹ U.S. Patent No. 6,290,944 was cited in the Office Action of March 13, 2002, at page 2, but, without comment, the patent was not cited in the Office Action of July 30, 2002. A rejection that is not repeated is considered withdrawn. However, for the sake of completeness, Appellants will, nevertheless, address the rejection including this patent.

VIII. Argument

A. Obviousness-Type Double Patenting

Claims 1-46 stand rejected under the doctrine of obviousness-type double patenting over the claims of U.S. Patent Nos. 6,028,041, 6,159,914, 6,162,424, and 6,290,944, and copending Application No. 09/759,165. (Office Action of July 30, 2002, pg. 2; Office Action of March 13, 2002, pg. 2.) Appellants respectfully submit that these rejections are in error and should be reversed.

The theory for these rejections is that the present claims are “directed to an invention that [is] not patentably distinct from the claims of the [referenced patents and application because]... all claims are directed towards analogous hair compositions comprising aminated silicones, amphoteric surfactants and anionic surfactants.” (Office Action of March 13, 2002, pg. 2 (emphasis added).) However, “analogous” is not the standard for double patenting. Further, as explained below, these rejections are in error at least because they are based on improper claim domination and routine optimization theories, the references fail to teach or suggest the claimed surfactant ratio and/or the claimed aminated silicone, and there is evidence of unexpected results.

a. The rejection improperly relies on a claim domination theory.

The Federal Circuit has recognized that “[o]ne of the simplest, clearest, soundest and most essential principles of patent law, is that a later invention may be validly patented, altho (sic) dominated by an earlier patent, whether to the same or to a different inventor. No one will seriously deny the correctness of this statement, in principle. But it is incessantly lost sight of when an actual case must be decided.” *In re Kaplan*, 229 USPQ 678, 682 (Fed. Cir. 1986) (citations and quotations omitted). This

principle has not been correctly applied in the current obviousness-type double patenting rejections.

The Examiner has acknowledged that the referenced patents and application "do no[t] teach the specific [amphoteric/anionic surfactant] ratio" of the presently claimed invention. (Office Action of July 30, 2002, pg. 2, ln. 18-19.) For several reasons, this difference should have been the end of the double-patenting inquiry, and no rejections should have been made. Nevertheless, the rejection is based on the argument that "the claims of these patents and application encompass any and all ratios... [and, thus, the instant claims are not distinguished because] it is within the skill of one in the art to discover the optimum range...." (Office Action of July 30, 2002, pg. 2, ln. 19-20.)

However, by arguing that "the claims of these patents and application encompass any and all ratios," the Examiner "has confused double patenting with 'domination' which, by itself, does not give rise to 'double patenting.'" *Kaplan* at 681. For at least the reason that the rejections rely upon an improper claim domination theory, the rejections are in error and should be reversed.

b. The rejection improperly relies upon a routine optimization theory since amphoteric/anionic surfactant ratios were not recognized.

Claim 1 recites, *inter alia*, a composition comprising "a washing base comprising at least one anionic surfactant and at least one amphoteric surfactant, **wherein the amphoteric surfactant/anionic surfactant ratio by weight is greater than or equal to 0.2:1.**" The Examiner acknowledged that the referenced patents and application "do no[t] teach the specific [amphoteric/anionic surfactant] ratio" of the presently claimed

invention, but nevertheless argues that "it is within the skill of one in the art to discover the optimum range...." (Office Action of July 30, 2002, pg. 2, ln. 18-20.)

Thus, the rejection is premised on an argument that the presently claimed amphoteric/anionic surfactant ratio, though not taught or suggested by the references, is obvious based on 'routine optimization.' However, application of this theory to the present case is wrong as a matter of law. In particular, optimization cannot be considered routine at least unless the variable was previously recognized as a result effective variable. Since there is no evidence that an amphoteric/anionic surfactant ratio was recognized as a result effective variable (except by Appellants), the rejection is wrong as a matter of law.

The theory of 'routine optimization' was recently addressed by the Board, who emphasized that a rejection based on this theory is improper when there is no evidence that the variable in question was previously recognized as a result effective variable. *Ex parte Samain and Dupuis* ("Samain"), Appeal No. 2001-1993 at 5, 7 (Bd.Pat.App.Inter. July 31, 2002) (attached as Exhibit A). In *Samain*, the Board overturned the examiner's argument that "relies upon optimization by one of ordinary skill in the art to arrive at the claimed Tg and wetting power," for the reason that

the examiner has not provided the requisite reason, suggestion or motivation... such as by establishing that the claimed Tg and wetting power are result effective variables. The examiner has also failed to establish that the claimed Tg and wetting power were known to be, in fact, inherent characteristics of the composition of [the cited reference].

Id.

The reasoning of *Samain* is consistent with C.C.P.A. precedent, which holds that that exceptions to the concept of routine optimization exist in cases "in which the

parameter optimized was not recognized to be a result-effective variable... ." *In re Antonie*, 559 F.2d at 620, 195 U.S.P.Q. at 8-9 (emphasis added). That is, the Court held that a variable must first be recognized as result effective before its optimization can be alleged routine. The underlying theory of these decisions seems to be that if no one recognized a variable as important or result effective, there would have been no motivation to optimize that variable.

The present rejection is based on reasoning similar to what was rejected in *Samain* and *Antonie*, and is similarly deficient. During the November 12, 2002, Examiner's Interview, it appeared to be the Examiner's position that the claims of the referenced patents and applications had both amphoteric and anionic surfactants, and therefore that they inherently and necessarily disclosed *some* amphoteric/anionic surfactant ratio.² Even assuming this is true, this is insufficient to establish that the ratio was recognized as result effective. Thus, even assuming that the claims of the cited references inherently disclose *some* amphoteric/anionic surfactant ratio, this fails to render the alleged "optimization" obvious.

For instance, from the decision in *Samain, supra*, it can be inferred that the products of the cited reference inherently had some specific (but unknown) Tg and wetting power. However, as stated by the Board, missing from the examiner's argument was evidence that these parameters were recognized as result effective variables or that the claimed values were inherent. *Samain* at 5, 7. Absent such

² The Examiner has not asserted that any of the claims of the cited references inherently disclose an amphoteric/anionic surfactant ratio within the scope of the presently claimed invention.

recognition, and thus any motivation to optimize these variables, the examiner's rejection was reversed. *Id.*

Likewise, in the present case, a relevant question is what was the motivation to optimize an amphoteric/anionic surfactant ratio when there was no recognition that this ratio is a result effective variable? Appellants expressly requested the identification of any alleged evidence in the claims of the referenced patents and application that shows the ratio to have been recognized as a result-effective variable. (Response After Final of January 28, 2003, pg. 6.) However, no evidence was provided. The only answer of record, that "it is within the skill of one in the art to discover the optimum range," is plainly insufficient to establish the requisite motivation in light of the Board's decision in *Samain* and the CCPA's holding in *Antonie*. See also *In re Rouffet*, 37 USPQ2d 1453,1459 (Fed. Cir. 1998) (high level of skill in art is not a substitute for motivation); *In re Lee*, 61 USPQ2d 1430 (Fed. Cir. 2002).

Analogous to the facts of *Samain*, it has not been established that the claimed amphoteric/anionic surfactant ratio was recognized as a result effective variable or that the claimed values were inherent.³ Absent such recognition, there would have been no motivation for the proposed optimization, and thus, the references do not support a prima facie case of obviousness-type double patenting.

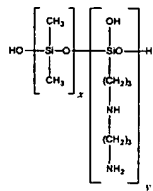
Since there is no evidence of record showing that an amphoteric/anionic surfactant ratio was recognized as a result effective variable in the claims of U.S. Patent Nos. 6,028,041, 6,159,914, 6,162,424, and 6,290,944, and copending Application

³ It is important to distinguish between some ratio being inherent, and the claimed ratio being inherent in the cited references. As discussed above, the former is insufficient to establish a prima facie case of obviousness and the latter has not been shown.

No. 09/795,165, the rejections are based on the erroneous conclusion that it would have been obvious to optimize the surfactant ratios in light of the claims therein. The present obviousness-type double patenting rejections should be reversed.

c. The claims of the references fails to teach or suggest an aminated silicone having an amine number greater than or equal to 0.4 meq/g.

In the claims of several of the cited references, the general amodimethicone



structure, i.e., is disclosed. (See, e.g., U.S. Patent No. 6,159,914 to Decoster *et al.*, claim 10.) However, even though certain amodimethicones can be the aminated silicone according to the presently claimed invention, not all amodimethicones have an amine number of greater than or equal to 0.4 meq/g, as set forth in claim 1. The subscripts x and y in the generic amodimethicone structure must be judiciously chosen to yield an amodimethicone having an amine number of greater than or equal to 0.4 meq/g. However, there is no guidance in the claims of the cited references directing one to make such a selection.

Accordingly, the claims of the cited references fail to teach, suggest, or provide and motivation for an aminated silicone according to the presently claimed invention. Therefore, a prima facie case of obviousness-type double patenting has not been established and the rejections should be reversed.

d. Evidence of non-obviousness

As shown in section VIII.B.1.e below, even if a prima facie case of obviousness-type double patenting had been established (thought Appellants do not

concede this) the rejection should be reversed in view of the evidence of unexpected results contained in the present application.

B. Rejections Under 35 U.S.C. § 103(a):

1. WO 98/03155 in view of U.S. Patent No. 5,567,428 to Hughes in further view of U.S. Patent No. 5,476,649 to Natio

Claims 1-46 stand rejected over WO 98/03155, for which the Examiner is relying on U.S. Patent No. 6,162,423 to Sebag (Sebag) as a translation, in view of U.S. Patent No. 5,567,428 (Hughes) in further view of U.S. Patent No. 5,476,649 (Natio). (Office Action of March 13, 2002, pg. 6-8.) Appellants respectfully submit that this rejection is in error and should be reversed.

Sebag Example 1 is cited as "a shampoo comprising imidazoline-based amphoteric surfactant and sodium lauryl ether sulphate (anionic surfactant) in [the claimed] ratio...." (Office Action of March 13, 2002, pg. 6, ln. 22-23.) Neither Sebag Example 1 nor any portion of Sebag is cited for teaching an aminated silicone having an amine number of greater than or equal to 0.4 meq/g, as claimed. Instead, the rejection is premised on substituting an aminated silicone attributed to Sebag generally (though not cited Example 1) with alkylamino substituted silicones attributed to Hughes. Specifically, the Examiner argues that:

[i]t would have been obvious... to substitute the alkylamino substituted silicones of Hughes for the aminated silicones of Sebag et al. because a) both reference teach cosmetic compositions for use on hair; b) both references teach aminated silicones as active agents, c) Hughes teaches his aminated silicones as increasing style hold strength of hair and as decreasing drying time; hence, the replacement of one for the other for cosmetic purposes would be within the skill of one in the art.

(Office Action of March 13, 2002, pg. 7, ln. 15-20.) Natio has only been cited for the teaching of 18-methyleicosanoic acid. (Office Action of March 13, 2002, pg. 7.)

The rejection, however, is based on unsupported picking and choosing in order to make the proposed substitution. As explained below, there is no teaching of or motivation for forming a composition comprising both the claimed surfactant ratio and the aminated silicone. The theory of inherency has been misapplied to reach the demonstrably wrong conclusion that all amodimethicones (a type of aminated silicone) have an amine number as claimed.⁴ For at least these reasons, discussed further below, the rejection should be reversed.

a. Being allegedly “within the skill of one in the art” is not sufficient evidence of a motivation for a proposed substitution

The present rejection is premised on substituting silicones according to Sebag with alkylamino substituted silicones according to Hughes. The Examiner argues, as alleged motivation, that “substituting one for the other for hair conditioning purposes, would be within the skill of one in the art.” (Office Action of March 13, 2002, pg. 5, ln. 15-16; pg. 8, ln. 9-10 (emphasis added).) However, the Federal Circuit has repeatedly and clearly held that similar conclusory statements are insufficient to establish a prima facie case of obviousness. Instead, a rejection must be supported by a specific motivation of record. *In re Rouffet*, 37 USPQ2d 1453,1459 (Fed. Cir. 1998) (high level of skill in art, without more, cannot supply required motivation to combine references,

⁴ Natio has not been cited for and does not overcome the deficiencies in the rejection with respect to the motivation to combine Sebag and Hughes. Accordingly, although Appellants recognize that the rejection is based on the combination of references taken together and although the alleged motivation relied upon for selecting and combining components from Natio is unsupported, in order to simplify the issues on appeal Natio need not be further addressed.

and does not overcome absence of any actual suggestion to combine); see also *In re Lee*, 61 USPQ2d 1430 (Fed. Cir. 2002).

Accordingly, since the present rejection relies on a legally erroneous substitution theory, without any motivational evidence of record, the rejection is in error and should be reversed.

- b. The references teach away from the proposed modification because silicones according to Sebag are used for a different purpose than alkylamino substituted silicones according to Hughes.**

The rejection is based on the proposed substitution of a silicone in Sebag with an aminodimethicone selected from Hughes. (Office Action of July 30, 2002, pg. 5.) However, since Hughes's amodimethicones and Sebag's silicones are disclosed for separate and independent functions, there would have been no motivation to make the proposed substitution.

Specifically, on the one hand, Sebag teaches using silicones as conditioners. (Sebag, col. 1, ln. 25-28.) More specifically, Sebag discloses using insoluble silicones to provide keratin substances with properties of softness, sheen, and disentangling. (Sebag, col. 2, ln. 50-55.)

In contrast, amodimethicones selected by the Examiner from Hughes have a distinct function. They are drying aids. (Hughes, col. 10, ln. 32 - col. 15, ln. 2.) Hughes addresses at great length the goal of decreasing the drying time for compositions comprising polysiloxane-grafted adhesive polymers and a volatile, water insoluble solvent. (Hughes, col. 1, ln. 61 - col. 2, ln. 55.) To this end, Hughes includes in the composition a drying aid, the presence of which "facilitates continued evaporation of

volatile solvent that would otherwise be trapped beneath the surface of the film, thus providing an overall decrease in drying time." (Hughes, col. 3, ln. 30-34 (emphasis added).) The drying aids are not taught to have any utility in the absence of the volatile, water-insoluble solvent for the adhesive polymer.

When the proposed substitution is justified by the allegation that "Hughes teaches his aminated silicones as additionally providing increased rate of drying" (Office Action at 5), the disclosure of Hughes is being misunderstood. As shown above, Hughes' drying aids are taught to provide Hughes' volatile, water-insoluble solvent-based compositions with increased drying rates. The drying aids are not taught to provide the enhanced drying in addition to any other property, and are not disclosed to provide any conditioning properties, which are the function of Sebag's silicones.

Thus, there would have been no utility, desirability, or motivation, based on the cited references, to add or substitute a drying aid according to Hughes into the water based compositions according to Sebag, which do not contain a volatile, water-insoluble solvent that needs to be evaporated. Moreover, while the compositions according to Hughes are applied and then evaporated (and thus depend on drying of the composition) the example compositions according to Sebag are all shampoos that are applied and washed away. There is no utility for a drying aid according to Hughes in such a shampoo according to Sebag.

During the November 12, 2002, Examiner's Interview, the Examiner appeared to take the position that as long as two components are both cosmetic composition components, there is no need to show any motivation for the proposed substitution and that the proposed substitution is in no way improper given the different functions of the

components.⁵ This position amounts to ignoring the teachings of the references as a whole and treating them as virtual catalogs from which individual components can be arbitrarily selected and combined with those of another reference. However, "[v]irtually all inventions are necessarily combinations of old elements. The notion, therefore, that combination claims can be declared invalid merely upon finding similar elements in separate prior patents... cannot be the law under the statute, § 103." *Pandait Corp. v. Dennison Mfg. Co.*, 1 USPQ 1593, 1630 (Fed. Cir. 1987) (footnotes omitted).

Therefore, since Hughes uses aminated silicones for a different purpose (drying aid) than Sebag uses silicones (provide softness, sheen, and disentangling), there would have been no motivation to make the proposed substitution. For at least this reason, the rejection is in error and should be reversed.

c. There would have been no motivation to substitute Hughes's alkyamino substituted silicones for Sebag's silicones in Sebag's specific compositions.

Sebag has not been cited for and does not provide any discussion related to an amphoteric/anionic surfactant ratio. This is irrefutable. At most, the Examiner has cited Sebag's Example 1 composition as inherently having both types of surfactants in the claimed ratio. (Office Action of March 13, 2002, pg. 6.) The Examiner also asserts that Sebag may be considered in its entirety, and is not limited to the examples. (Office Action of July 30, 2002, pg. 6.) What is actually proposed under cover of this rational is

⁵ Appellants expressly requested that this position be clarified for the record (Response After Final of January 28, 2003, pg. 14), but no clarification has been provided. Accordingly, Appellants continue to understand the Examiner's position to be that no motivation is required to combine components of cosmetic compositions. The only point that Appellants can agree with, however, is that no motivation has been shown.

to select the surfactant ratio from Example 1 and associate it with other separate and independent disclosures in Sebag relating to silicones.

However, when the surfactant combination of Sebag Example 1 is divorced from its context, the rejection is premised on impermissible picking and choosing in violation of the holding of *In re Wesslau*, 147 USPQ 391, 393 (CCPA 1965) ("It is impermissible within the framework of section 103 to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one skilled in the art."); *Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurre, Inc.*, 230 USPQ 416, 419-420 (Fed. Cir. 1986). While the principle of relying on a reference in its entirety is certainly valid, the method in which this principle has been applied is flawed. It betrays hindsight reasoning, since there is no basis or evidence that has been pointed to (or can be pointed to) to justify selecting a particular ratio from one particular example and freely combining this ratio with other aspects of the reference.

Absent this hindsight driven picking and choosing, the rejection necessarily fails. For example, although Sebag is cited for disclosing "[p]olyorganosiloxanes containing substituted or unsubstituted amine groups," (Office Action of March 13, 2002, pg. 6, Ins. 15-16), the composition of Sebag Example 1 contains polydimethylsiloxane, which is unsubstituted with amine groups. (Sebag, col. 17, ln. 52.) Accordingly, assuming for the sake of argument only (though Appellants do not concede the point) that there is a motivation "to substitute the alkylamino substituted silicones of Hughes for the aminated silicones of Sebag et al." (Office Action of March 13, 2002, pg. 7, Ins. 15-20 (emphasis

added)), no basis has been shown for substituting the aminated amodimethicone of Hughes for the non-aminated polydimethylsiloxane of, for example, Sebag Example 1.

In the absence of the requisite motivation for associating the implicit surfactant ratio of Sebag Example 1 with an aminated silicone (instead of the non-aminated silicone actually used in Sebag Example 1), a prima facie case of obviousness has not been established. For at least this reason, the rejection is in error and should be reversed.

d. The principles of inherency has been confused with motivation to select a particular value.

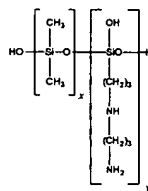
In response to Appellants' showing that there would not have been any motivation for picking from Hughes an amodimethicone having amine number of greater than or equal to 0.4 meq/g, the Examiner argues that "an amine number is an inherent property of a chemical compound.... [and therefore] there is no need to separately address motivation for substituting amine numbers." (Office Action of July 30, 2002, pg. 6, ln. 11-14 (emphasis added).) This argument is fallacious.

While some given property may, in fact, be an inherent property of a chemical compound, the rejection is flawed for failing to appreciate that not all chemical compounds will have the given property at a specific value or range. For example, mass is an inherent property, but not all polymers have a mass of, for instance, greater than 20,000 units. Likewise, not all aminosiloxanes, including not all amodimethicones, have an amine number of greater than or equal to 0.4 meq/g.

In fact, the present specification expressly identifies several commercial amodimethicone products that have an amine number outside this range. For example, as shown on pages 22-23 of the present specification, Wacker's Finish WR 100 in an

amodimethicone with an amine number of 0.15 meq/g, Wacker's Finish WR 1300 is an amodimethicone with an amine number of 0.3 meq/g, OSI's Silsoft TP 515 is an amodimethicone emulsion with an amine number of 0.058 meq/g, and Dow Corning's DC939 is an amodimethicone emulsion with an amine number of <0.1 meq/g. Thus, there is specific evidence of record that not all amodimethicones inherently have an amine number of greater than or equal to 0.4meq/g.

It may not have been appreciated that even though Hughes discloses as a drying



aid the general amodimethicone structure, i.e., (Hughes, col. 13, ln. 40-56), and even though certain amodimethicones can be the aminated silicone according to the presently claimed invention, not all amodimethicones have an amine number of greater than or equal to 0.4 meq/g, as set forth in claim 1. The subscripts x and y in Hughes' generic amodimethicone structure must be judiciously chosen to yield an amodimethicone having an amine number of greater than or equal to 0.4 meq/g. However, there is no guidance of any kind in Hughes (or any of the cited references) directing one to make such a selection. Moreover, as shown above and in the present specification, many commercially available amodimethicones have an amine number of less than 0.4 meq/g, which means that one would not automatically or inherently obtain an amodimethicone within the scope of the presently claimed invention when using commercial products.

Therefore, since amodimethicones do not inherently have an amine number of greater than or equal to 0.4meq/g, substituting the amodimethicone drying aid of

Hughes for the hold polymer of Sebag would not necessarily yield a composition within the scope of the presently claimed invention. The rejection is based on a misapplication of the theory of inherency and should be reversed.

e. Evidence of non-obviousness.

Appellants in no way concede that a prima facie case of obviousness has been established. Hence, there is no duty to identify evidence of non-obviousness.

Nevertheless, the comparative examples in the present specification demonstrate unexpected properties of a composition comprising an amphoteric/anionic surfactant ratio within the claimed range and an aminated silicone having an amine number within the claimed range.

For instance, as shown in Example 1 at pages 20 and 21 of the present specification, two shampoo compositions differing only in their amphoteric/anionic surfactant ratios have different transparencies. Specifically, comparative composition "B," which has an amphoteric/anionic surfactant ratio of 0.14, is not transparent. In contrast, composition "A," which has an amphoteric/anionic surfactant ratio of 0.33, is transparent. Further, hair shampooed with composition "A" more readily disentangles, and was softer and smoother than hair shampooed with composition "B."

Additionally, with specific respect to the aminated silicone, Example 2 on pages 21-23 of the present specification directly compares eleven compositions, six of which have an aminated silicone with an amine number of less than 0.4 meq/g, and five of which have an aminated silicone with an amine number of greater than or equal to 0.4 meq/g. Consistently, the compositions with the lower amine numbers were not

transparent and not stable, while those with the higher amine number were both transparent and stable.

Appellants submit that the Examiner has not identified any art that would represent a better or closer comparison for the claimed invention. Moreover, Appellants submit that there is no basis in the cited references or anywhere in the record from which one would expect these results. Accordingly, even if a prima facie case of obviousness has been established (though Appellants contend no such case has been established), the rejection is in error and should be reversed in view of the evidence of record of unexpected results.

2. U.S. Patent No. 6,162,424 to Decoster in view of Hughes and Natio

Claims 1-46 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,162,424 to Decoster (Decoster '424) in view of Hughes and Natio. (Office Action, pg. 6.) Appellants respectfully submit that this rejection is in error and should be reversed.

As with the previous rejection, the Examiner proposes that it would have been obvious to substitute alkylamino substituted silicones of Hughes for silicones of Decoster '424 for the alleged reason that alkylamino substituted silicones of Hughes are taught to provide increased hold strength and decreased drying time. (Office Action of March 13, 2002, pg. 9.) Natio is cited only for a single component (18-methyl-eicosanoic acid) (*Id.*).

However, even if there would have been motivation for this substitution, the proposed composition fails to contain the claimed surfactant ratio. The proposed 'routine optimization' of this element is wrong as a matter of law. Moreover, the

rejection is based on unsupported picking and choosing from the references, and there would have been no motivation for the proposed substitution.⁶ For at least the following reasons, the rejection is in error and should be reversed.

a. The reference combination fails to teach or suggest all the claimed elements, including the amphoteric/anionic surfactant ratio.

According to the Examiner, Example 1 of Decoster '424 discloses sodium lauryl ether sulphate as an anionic surfactant and diallyldimethylammonium chloride homopolymer as an amphoteric surfactant. (Office Action of March 13, 2002, pg. 8.) As disclosed in Decoster '424, Example 1, composition B contains 15.5g of the cited anionic surfactant and 0.6g of the diallyldimethylammonium chloride homopolymer, the component cited by the Examiner as an amphoteric surfactant. The ratio by weight of the components cited by the Examiner is 0.6/15.5 or 0.04:1. Actually, diallyldimethylammonium chloride homopolymer is not an amphoteric surfactant but is a cationic polymer. Example 1, composition A does, however, contain 2.56 grams of disodium cocoamphodiacetate, which is an amphoteric surfactant, and also contains 15.5g of the anionic surfactant sodium lauryl ether sulphate. Accordingly, the ratio by weight of amphoteric/anionic surfactant is 2.56/15.5 or 0.165:1. In any event, in contrast to these weight ratios, the presently claimed composition must have an amphoteric/anionic surfactant ratio of greater than or equal to 0.2:1, as set forth more specifically in the claims.

⁶ Once again, Natio has not been cited for and does not overcome the many deficiencies of the other references. Therefore, although the alleged motivation relied upon for selecting and combining components from Natio is unsupported, in order to simplify the issues on appeal, Natio need not be further addressed.

Accordingly, as the secondary references have not been cited for teaching or suggesting this element, a prima facie case of obviousness has not been established since the references, taken together, fail to teach or suggest all the claimed elements. For at least this reason, the rejection is in error and should be reversed.

b. A rejection may not rely on allegedly 'routine optimization' when a variable has not been recognized as result effective.

Regarding the presently claimed amphoteric/anionic surfactant ratio, the Examiner argues that "discovering the optimum or workable ranges involves only routine skill in the art." (Office Action of July 30, 2002, pg. 7.) However, a particular parameter must first be recognized as a result-effective variable before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation. See Section VII.A.b.; *Samain, supra*; *Antonie, supra*. Thus, the Examiner's present assertion is wrong as a matter of law since there is no evidence that the ratio was recognized as a result effective variable. For at least this reason, the rejection should be reversed.

c. A rejection may not be based on unsupported hindsight reconstruction based on Appellants' own disclosure.

There is no dispute that the Fluid DC 939 disclosed in Decoster '424 Example 1 does not have an amine number of greater than or equal to 0.4 meq/g. In fact, Fluid DC 939 has an amine number of <0.1 meq/g. (Specification, page 23, line 4.) However, rather than conceding the failure to establish a prima facie case, the Examiner appears to argue that since elsewhere in Decoster '424 there is a disclosure of amodimethicone generally, an aminodimethicone having an amine number of greater than or equal to

0.4 meq/g can be freely and arbitrarily selected. (Office Action of July 30, 2002, pg. 7.) However, as discussed previously, a rejection may not be based on such unsupported picking and choosing to select the portions of a reference that support its position and, at the same time, ignoring the portions that do not. See *In re Wesslau*, 147 USPQ 391, 393 (CCPA 1965) ("It is impermissible within the framework of section 103 to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one skilled in the art.").

Moreover, the rejection must be supported by evidence of a motivation for each particular modification or substitution. See, e.g., *In re Rouffet*. In the present case, there has been no attempt to provide such motivation and no such evidence exists. Instead, the rejection is vaguely premised on "the admitted knowledge in the art." (Office Action of July 30, 2002, pg. 7.) However, this vague elusion, in absence of any findings of fact, does not support a rejection. See, e.g., *In re Lee*, 61 USPQ2d 1430 (Fed. Cir. 2002).

For at least the reason that the rejection is not supported by any motivation to select and use an amodimethicone from Hughes having an amine number of greater than or equal to 0.4 meq/g, the rejection is in error and should be reversed.

d. There would have been no motivation to substitute Hughes' alkyamino substituted silicones for the silicones of Decoster '424.

Decoster '424 teaches silicones to provide softness and other properties (Decoster '424, col. 1, lines 31-26), while Hughes teaches alkylamino substituted compounds as drying agents, as discussed above. See section VIII.B.1.b. Given the

different uses for the silicones of the two respective references, there would have been no motivation for the proposed substitution and, hence, no prima facie case of obviousness.

For at least this reason, the rejection is in error and should be withdrawn.

e. Evidence of non-obviousness

As shown in section VIII.B.1.e above, even if a prima facie case of obviousness had been established (though Appellants do not concede this) the rejection should be reversed in view of the evidence of unexpected results contained in the present application.

3. U.S. Patent No. 6,159,914 to Decoster in view of Natio

Claims 1 and 33 were rejected under 35 U.S.C § 103(a) as being unpatentable over U.S. Patent No. 6,159,914 (Decoster '914) in view of Natio. (Office Action of July 30, 2002, pg. 8.) Appellants respectfully submit that this rejection is in error and should be reversed.

a. The reference combination fails to teach or suggest an aminated silicone having an amine number greater than or equal to 0.4 meq/g.

Decoster '914 does not teach an aminated silicone having an amine number greater than or equal to 0.4 meq/g. Specifically, while the example compositions include the amodimethicone FLUID DC 939 from Dow Corning, they do not include an aminosilicone according to the presently claimed invention. (Decoster '041, col. 16, ln. 21-22; Decoster '914, col. 9, ln. 62-62, col. 10, ln. 27-28.) In particular, FLUID DC 939 has an amine number of <0.1 meq/g (see page 23, line 4 of the present application), which is not greater than or equal to 0.4 meq/g, as required by the present claims (see,

e.g., claim 1, ln. 5-7). That is, Decoster '914 fails to teach or suggest an aminated silicone according to the presently claimed invention.

Since Natio also has not been cited for and does not teach an aminated silicone according to the presently claimed invention, the references, taken together, fail to teach or suggest all the elements of the presently claimed invention. Thus, the proposed combination fails to support a prima facie case of obviousness. For at least this reason, the rejection is in error and should be reversed.

b. Evidence of non-obviousness

As shown in section VIII.B.1.e above, even if a prima facie case of obviousness had been established (though Appellants do not concede this) the rejection should be reversed in view of the evidence of unexpected results contained in the present application.

IX. CONCLUSION

The pending rejections suffer from fatal deficiencies, such as improper variable optimization in absence of prior recognition that the variable was result effective. For at least the reasons shown herein, the pending rejections should each be reversed.

To the extent any extension of time under 37 C.F.R. § 1.136 is required to obtain entry of this Appeal Brief, such extension is hereby respectfully requested. If there are any fees due under 37 C.F.R. §§ 1.16 or 1.17 which are not enclosed herewith, including any fees required for an extension of time under 37 C.F.R. § 1.136, please charge such fees to our Deposit Account No. 06-0916.


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Dated: March 27, 2003

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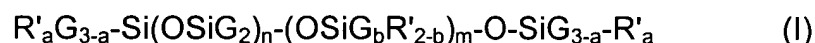
APPENDIX - CLAIMS ON APPEAL

1. A detergent and conditioning cosmetic composition, comprising:

(A) a washing base comprising at least one anionic surfactant and at least one amphoteric surfactant, wherein the amphoteric surfactant/anionic surfactant ratio by weight is greater than or equal to 0.2:1; and,

(B) a conditioner system comprising at least one aminated silicone having an amine number greater than or equal to 0.4 meq/g, said at least one aminated silicone being chosen from:

(a) aminated silicone polymers corresponding to the formula:



in which:

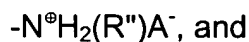
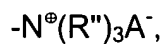
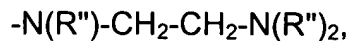
G is chosen from a hydrogen atom, phenyl, OH, and C₁-C₈ alkyl groups;

a is chosen from 0, 1, 2, and 3;

b is chosen from 0 and 1;

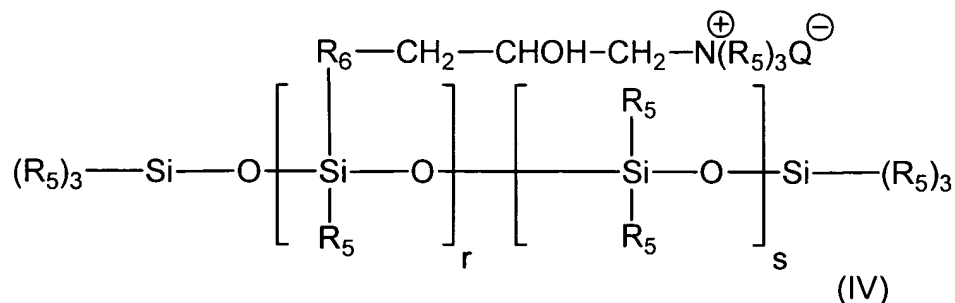
m and n are chosen from numbers such that the sum (n+m) varies from 1 to 2000;

R' is chosen from monovalent radicals of formula -C_qH_{2q}L, wherein q is chosen from a number ranging from 2 to 8 and L is chosen from optionally quaternized amino groups chosen from:



wherein R'', which are identical or different, are chosen from a hydrogen atom, and phenyl, benzyl and saturated monovalent hydrocarbon-comprising radicals, and A⁻ is chosen from organic and inorganic anions; and

(b) cationic silicone polymers corresponding to the following formula (IV):



in which:

R₅ is chosen from monovalent hydrocarbon-comprising radicals having from 1 to 18 carbon atoms;

R₆ is chosen from divalent hydrocarbon-comprising radicals;

Q⁻ is chosen from organic and inorganic anions;

r represents a mean statistical value ranging from 2 to 20;

s represents a mean statistical value ranging from 20 to 200.

2. The composition according to Claim 1, wherein the amine number ranges from 0.5 to 5 meq/g.
3. The composition according to Claim 1, wherein said washing base is present in said composition in an amount ranging from 4% to 50% by weight with respect to the total weight of the composition.
4. The composition according to Claim 3, wherein the amount of washing base ranges from 6% to 35% by weight relative to the total weight of the composition.
5. The composition according to Claim 4, wherein the amount of washing base ranges from 8% to 25% by weight relative to the total weight of the composition.
6. The composition according to Claim 1, wherein said at least one anionic surfactant is present in said composition in an amount ranging from 3 to 30% by weight relative to the total weight of the composition.
7. The composition according to Claim 6, wherein the amount of said at least one anionic surfactant ranges from 5% to 20% by weight relative to the total weight of the composition.
8. The composition according to Claim 1, wherein the at least one amphoteric surfactant is present in said composition an amount ranging from 1 to 20% by weight, relative to the total weight of the composition.
9. The composition according to Claim 8, wherein the amount of the at least one amphoteric surfactant ranges from 1.5 to 15% by weight, relative to the total weight of the composition.
10. The composition according to Claim 1, wherein the amphoteric surfactant/anionic surfactant ratio by weight ranges from 0.2:1 to 10:1.

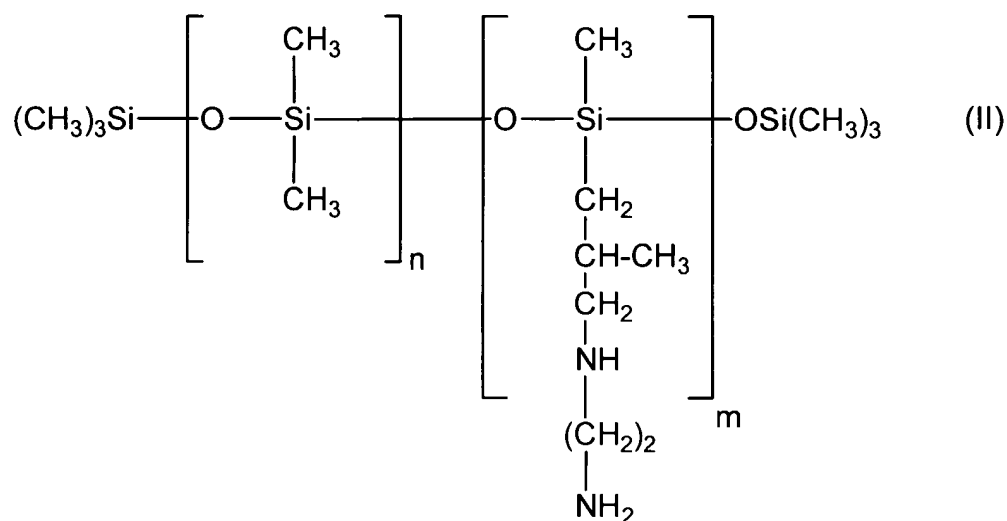
11. The composition according to Claim 10, wherein the amphoteric surfactant/anionic surfactant ratio by weight ranges from 0.25:1 to 5:1.
12. The composition according to Claim 11, wherein the amphoteric surfactant/anionic surfactant ratio by weight ranges from 0.3:1 to 3:1.
13. The composition according to Claim 1, wherein G is a methyl group.
14. The composition according to Claim 1, wherein a is 0.
15. The composition according to Claim 1, wherein b is 1.
16. The composition according to Claim 1, wherein the sum (n+m) varies from 50 to 150.
17. The composition according to Claim 1, wherein n is chosen from the numbers 0 to 1999 and m is chosen from the numbers 1 to 2000.
18. The composition according to Claim 17, wherein n is chosen from the numbers 49 to 149.
19. The composition according to Claim 17, wherein m is chosen from the numbers 1 to 10.
20. The composition according to Claim 1, wherein the saturated monovalent hydrocarbon-comprising radicals are chosen from alkyl radicals having from 1 to 20 carbon atoms.
21. The composition according to Claim 20, wherein the saturated monovalent hydrocarbon-comprising radicals are a methyl radical.
22. The composition according to Claim 1, wherein R_5 is chosen from C_1 - C_{18} alkyl and C_2 - C_{18} alkenyl radicals.
23. The composition according to Claim 22, wherein R_5 is a methyl radical.

24. The composition according to Claim 1, wherein R₆ is chosen from divalent C₁-C₁₈ alkylene radicals and divalent C₁-C₁₈ alkyleneoxy radicals.

25. The composition according to claim 24, wherein R₆ is chosen from divalent C₁-C₈ alkylene radicals and divalent C₁-C₈ alkyleneoxy radicals.

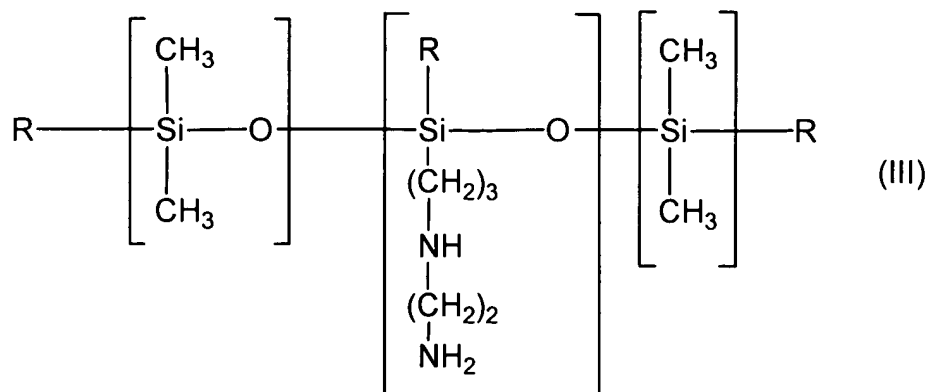
26. The composition according to Claim 1, wherein the at least one aminated silicone is chosen from:

- trimethylsilylamodimethicone polymers having the formula:



in which m and n are chosen from numbers such that the sum $(n+m)$ ranges from 1 to 2000; and,

- amodimethicone polymer having the formula:



in which R is chosen from OH and methyl.

27. The composition according to Claim 26, wherein n is chosen from the numbers 0 to 1999 and m is chosen from the numbers 1 to 2000.

28. The composition according to Claim 27, wherein n is chosen from the numbers 49 to 149.

29. The composition according to Claim 27, wherein m is chosen from the numbers 1 to 10.

30. The composition according to Claim 1, wherein the at least one aminated silicone is present in said composition in an amount ranging from 0.05 to 15% by weight relative to the total weight of the composition.

31. The composition according to Claim 30, wherein the amount of said at least one aminated silicone ranges from 0.2 to 10% by weight relative to the total weight of the composition.

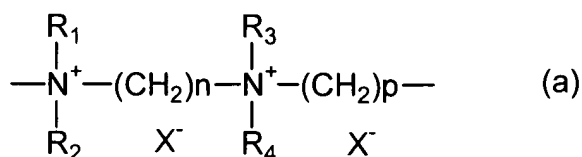
32. The composition according to Claim 1, wherein said composition further comprises at least one adjuvant chosen from cationic surface-active agents; anionic, non-ionic, cationic, and amphoteric polymers; proteins; protein hydrolysates; ceramides;

pseudoceramides; fatty acids comprising linear C₁₆-C₄₀ chains; fatty acids comprising branched C₁₆-C₄₀ chains; hydroxy acids; vitamins; panthenol; volatile and non-volatile silicones other than the silicones defined in formula (I) and (IV) of Claim 1, said other silicones being soluble or insoluble in the medium; UV screening agents; moisturizing agents; antidandruff and antiseborrheic agents; and agents for combating free radicals.

33. The composition according to Claim 32, wherein said fatty acid is 18-methyl-eicosanoic acid.

34. The composition according to Claim 32, wherein the cationic polymers are chosen from quaternary derivatives of cellulose ether; diallyldimethylammonium salt homopolymers; copolymers of diallyldimethylammonium salt and acrylamide; cationic polysaccharides; and copolymers of vinylpyrrolidone and methylvinylimidazolium salt.

35. The composition according to Claim 32, wherein the cationic polymers are chosen from polymers comprising repeat units corresponding to the formula:



in which R₁, R₂, R₃ and R₄, which are identical or different, are chosen from alkyl and hydroxyalkyl radicals having from 1 to 4 carbon atoms, n and p are chosen from integers ranging from 2 to 20 and X⁻ is chosen from anions of inorganic and organic acids.

36. The composition according to Claim 32, wherein the cationic polymers are present in said composition in an amount ranging from 0.001% to 10% by weight, relative to the total weight of the composition.

37. The composition according to Claim 36, wherein the amount of cationic polymers range from 0.005% to 5% by weight, relative to the total weight of the composition.

38. The composition according to Claim 37, wherein the amount of cationic polymer ranges from 0.01% to 3% by weight, relative to the total weight of the composition.

39. The composition according to Claim 1, further comprising a cosmetically acceptable aqueous medium, wherein said medium is chosen from water and a mixture of water and a cosmetically acceptable solvent.

40. The composition according to Claim 39, wherein the cosmetically acceptable solvent is chosen from C₁-C₁₂ alcohols, polyols, and glycol ethers.

41. The composition according to Claim 40, wherein:

the C₁-C₁₂ alcohols are chosen from ethanol, isopropanol, tert-butanol, n-butanol, hexanol and decanol; and

the polyols are chosen from alkylene glycols.

42. The composition according to Claim 41 wherein the alkylene glycols are chosen from propylene glycol, glycerol and poly(alkylene glycol)s.

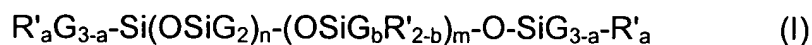
43. The composition according to Claim 39, wherein said solvent is present in an amount ranging from 0.1 to 20% by weight relative to the total weight of the composition.

44. A composition for cleaning or removing make-up from keratinous substances, or for conditioning keratinous substances, comprising:

(A) a washing base comprising at least one anionic surfactant and at least one amphoteric surfactant, wherein the amphoteric surfactant/anionic surfactant ratio by weight is greater than or equal to 0.2:1; and,

(B) a conditioner system comprising at least one aminated silicone having an amine number greater than or equal to 0.4 meq/g, said at least one aminated silicone being chosen from:

(a) aminated silicone polymers corresponding to the formula:



in which:

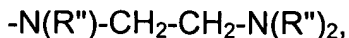
G is chosen from a hydrogen atom, phenyl, OH, and C₁-C₈ alkyl groups;

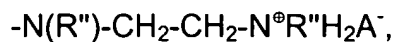
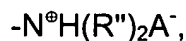
a is chosen from 0, 1, 2, and 3;

b is chosen from 0 and 1;

m and n are chosen from numbers such that the sum (n+m) varies from 1 to 2000;

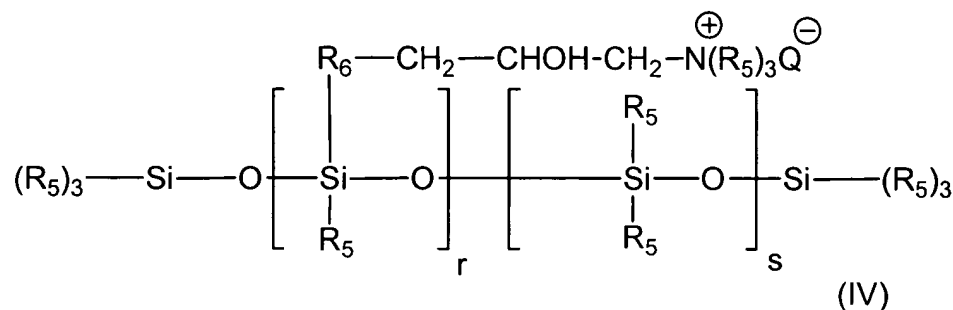
R' is chosen from monovalent radicals of formula -C_qH_{2q}L, wherein q is chosen from a number ranging from 2 to 8 and L is chosen from optionally quaternized amino groups chosen from:





wherein R'' , which are identical or different, are chosen from a hydrogen atom, and phenyl, benzyl and saturated monovalent hydrocarbon-comprising radicals, and A^{-} is chosen from organic and inorganic anions; and

(b) cationic silicone polymers corresponding to the following formula (IV):



in which:

R_5 is chosen from monovalent hydrocarbon-comprising radicals having from 1 to 18 carbon atoms;

R_6 is chosen from divalent hydrocarbon-comprising radicals;

Q^{-} is chosen from organic and inorganic anions;

r represents a mean statistical value ranging from 2 to 20;

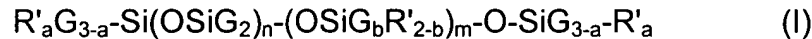
s represents a mean statistical value ranging from 20 to 200.

45. A shampoo comprising:

(A) a washing base comprising at least one anionic surfactant and at least one amphoteric surfactant, wherein the amphoteric surfactant/anionic surfactant ratio by weight is greater than or equal to 0.2:1; and,

(B) a conditioner system comprising at least one aminated silicone having an amine number greater than or equal to 0.4 meq/g, said at least one aminated silicone being chosen from:

(a) aminated silicone polymers corresponding to the formula:



in which:

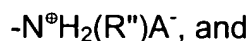
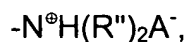
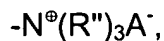
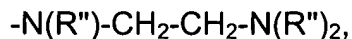
G is chosen from a hydrogen atom, phenyl, OH, and C₁-C₈ alkyl groups;

a is chosen from 0, 1, 2, and 3;

b is chosen from 0 and 1;

m and n are chosen from numbers such that the sum (n+m) varies from 1 to 2000;

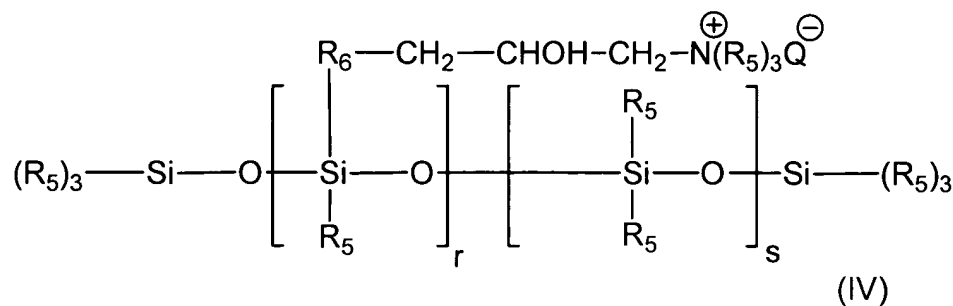
R' is chosen from monovalent radicals of formula -C_qH_{2q}L, wherein q is chosen from a number ranging from 2 to 8 and L is chosen from optionally quaternized amino groups chosen from:





wherein R'', which are identical or different, are chosen from a hydrogen atom, and phenyl, benzyl and saturated monovalent hydrocarbon-comprising radicals, and A⁻ is chosen from organic and inorganic anions; and

(b) cationic silicone polymers corresponding to the following formula (IV):



in which:

R₅ is chosen from monovalent hydrocarbon-comprising radicals having from 1 to 18 carbon atoms;

R₆ is chosen from divalent hydrocarbon-comprising radicals;

Q⁻ is chosen from organic and inorganic anions;

r represents a mean statistical value ranging from 2 to 20;

s represents a mean statistical value ranging from 20 to 200.

46. A process for washing and for conditioning keratinous substances, comprising:

applying an effective amount of a detergent and conditioning cosmetic composition to wetted keratinous substances; and, subsequently,

rinsing said keratinous substances with water, after an optional period of rest, said detergent and conditioning cosmetic composition comprising:

(A) a washing base comprising at least one anionic surfactant and at least one amphoteric surfactant, wherein the amphoteric surfactant/anionic surfactant ratio by weight is greater than or equal to 0.2:1; and,

(B) a conditioner system comprising at least one aminated silicone having an amine number greater than or equal to 0.4 meq/g, said at least one aminated silicone being chosen from:

(a) aminated silicone polymers corresponding to the formula:



in which:

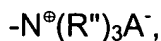
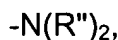
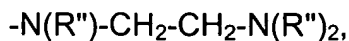
G is chosen from a hydrogen atom, phenyl, OH, and C₁-C₈ alkyl groups;

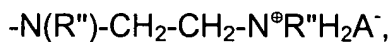
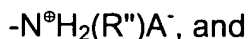
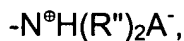
a is chosen from 0, 1, 2, and 3;

b is chosen from 0 and 1;

m and n are chosen from numbers such that the sum (n+m) varies from 1 to 2000;

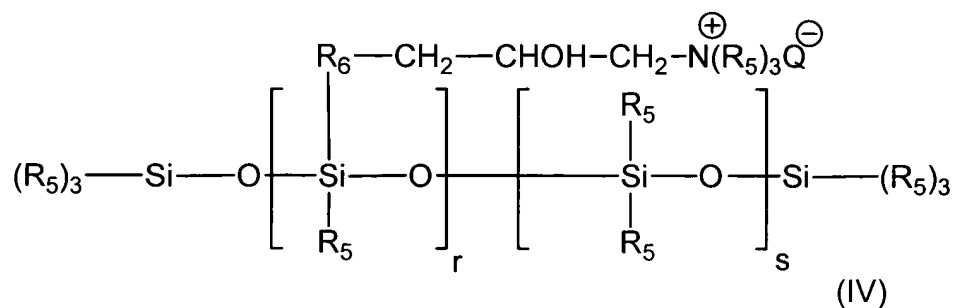
R' is chosen from monovalent radicals of formula -C_qH_{2q}L, wherein q is chosen from a number ranging from 2 to 8 and L is chosen from optionally quaternized amino groups chosen from:





wherein R'', which are identical or different, are chosen from a hydrogen atom, and phenyl, benzyl and saturated monovalent hydrocarbon-comprising radicals, and A⁻ is chosen from organic and inorganic anions; and

(b) cationic silicone polymers corresponding to the following formula (IV):



in which:

R₅ is chosen from monovalent hydrocarbon-comprising radicals having from 1 to 18 carbon atoms;

R₆ is chosen from divalent hydrocarbon-comprising radicals;

Q⁻ is chosen from organic and inorganic anions;

r represents a mean statistical value ranging from 2 to 20;

s represents a mean statistical value ranging from 20 to 200.

The opinion in support of the decision being entered today was not written
for publication and is not binding precedent of the Board.

Paper No. 21

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte HENRI SAMAIN and CHRISTINE DUPUIS

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AUG 05 2002

FINNEGAN, HENDERSON,
FARABOW, GARRETT & DUNNER, LLP.

Appeal No. 2001-1993
Application No. 08/976,506

ON BRIEF¹

JUL 31 2002

PAT. & T.M. OFFICE
BOARD OF PATENT APPEALS
AND INTERFERENCES

Before ADAMS, MILLS and GRIMES, Administrative Patent Judges.

MILLS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. §134 from the examiner's final rejection of claims 1-21, which are all of the claims pending in this application.

We reverse.

Claim 1 is illustrative of the claims on appeal and reads as follows:

¹ This application was originally scheduled for oral hearing on July 23, 2002. The oral hearing was found to be unnecessary by the Board.

1. An aerosol device comprising:

a container containing an aerosol composition, said aerosol composition comprising a liquid phase or fluid containing at least one fixing material in a suitable solvent and a propellant, wherein said at least one fixing material has a glass transition temperature (T_g)² of greater than or equal to 40°C and comprising at least one polymer containing vinyl lactam units; and

a means for distributing said aerosol composition wherein said device is suitable for obtaining a wetting power of greater than or equal to 40mg/s.

The prior art references relied upon by the examiner are:

Murphy et al (Murphy)	4,983,377	Jan. 8, 1991
Russell et al. (Russell)	4,049,077	Sept. 20, 1977
European Patent Application (Bolich)	0 205 306 A2	Dec. 17, 1986

Grounds of Rejection

Claims 1-21 stand rejected under 35 U.S.C. 103 for obviousness in view of Murphy.

Claims 1-21 stand rejected under 35 U.S.C. 103 for obviousness in view of Murphy in view of Russell.

Claims 1-21 stand rejected under 35 U.S.C. 103 for obviousness in view of Russell.

Claims 1-21 stand rejected under 35 U.S.C. 103 for obviousness in view of Bolich.

² According to the specification page 3, T_g is "understood to refer to the T_g of the fixing material in the dry extract, the dry extract comprising all of the non-volatile materials in the fluid or solids."

DISCUSSION

In reaching our decision in this appeal, we have given consideration to the appellants' specification and claims, to the applied references, and to the respective positions articulated by the appellants and the examiner.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the noted rejections, we make reference to the examiner's Answer for the examiner's reasoning in support of the rejection, and to the appellants' Brief and Reply Brief for the appellants' arguments thereagainst. As a consequence of our review, we make the determinations which follow.

35 U.S.C. 103

Claims 1-21 stand rejected under 35 U.S.C. 103 for obviousness in view of Murphy. Claims 1-21 stand rejected under 35 U.S.C. 103 for obviousness in view of Murphy in view of Russell. Claims 1-21 stand rejected under 35 U.S.C. 103 for obviousness in view of Russell.

Murphy

Murphy teaches a hair setting polymer which is soluble or dispersible in a volatile solvent. The polymer compositions of Murphy include polyvinylpyrrolidone (PVP), copolymers of PVP and methylmethacrylate, and about 87% ethanol. Murphy also indicates that the composition can be used as an aerosol having a propellant as

conventionally used in aerosol containers. Answer, page 3. While recognizing the teachings of Murphy are generic, the examiner suggests that the compositions of Murphy do not exclude the use of polymers with a Tg about 40° C. Answer, pages 3-4.

The examiner concludes that given the scope of the teachings of Murphy, "it would have been obvious for one of ordinary skill in the art that to optimize the flow rates of the solids and aerosol composition as claimed in the instant invention with an expectation of providing a traditional style-holding benefit to the hair together with a soft feel to the hair." Answer, page 4.

In response, Appellants argue that the product of Murphy requires a silicone gum as an essential component, as well as a hydrophobically treated clay. Brief, page 9. The appellants further argue that Murphy does not even mention the Tg of the fixing material or the wetting power of the dispensing device, as claimed. Appellants state that their invention solves a particular problem in the art by providing a **"particular fixing polymer with vinyl lactam units having a particular Tg, along with a means for distributing the composition in a device suitable for obtaining a specific wetting power."** [Emphasis original.] Brief, page 10. The appellants conclude the examiner has not pointed to any suggestion in the art which would have "motivated one of ordinary skill in the art to attempt to modify either the fixing polymer or the properties of the dispensing device" to satisfy the burden of establishing a prima facie case of obviousness. Brief, page 11.

We agree with the appellants that the examiner has failed to establish a prima facie case of obviousness. The examiner relies upon optimization by one of ordinary skill in the art to arrive at the claimed Tg and wetting power. However, it is improper to rely on the "common knowledge and common sense" of the person of ordinary skill in art to find an invention obvious over a combination of prior art references, since the factual question of motivation to select and combine references is material to patentability, and cannot be resolved on subjective belief and unknown authority. In re Lee, 277 F.3d 1338, 1342, 61 USPQ2d 1430, 1435 (Fed. Cir. 2002).

Patent examiners, relying on what they assert to be general knowledge to negate patentability on grounds of obviousness, must articulate that knowledge and place it on the record, since examiners are presumed to act from the viewpoint of a person of ordinary skill in art in finding the relevant facts, assessing the significance of the prior art, and in making the ultimate determination of obviousness. Failure to do so is not consistent with either effective administrative procedure or effective judicial review, and thus an examiner cannot rely on conclusory statements when dealing with particular combinations of prior art and specific claims, but must set forth rationale on which it relies. In re Lee, 277 F.3d 1338, 1342, 61 USPQ2d 1430, 1435 (Fed. Cir. 2002).

In addition, appellants argue that in order to establish that it would have been obvious to optimize the Tg and wetting power, the examiner must first establish that the prior art evidences these parameters are in fact, result effective variables. Brief, page

12. Appellants argue that the examiner has not established through the prior art of record that the claimed parameters, are result effective variables. We agree.

Moreover, in appropriate circumstances, a single prior art reference can render a claim obvious. See, e.g., B.F. Goodrich Co. v. Aircraft Braking Sys. Corp., 72 F.3d 1577, 1582, 37 USPQ2d 1314, 1318 (Fed. Cir. 1996); In re O'Farrell, 853 F.2d 894, 902, 7 USPQ2d 1673, 1680 (Fed. Cir. 1988). However, there must be a showing of a suggestion or motivation to modify the teachings of that reference to the claimed invention in order to support the obviousness conclusion. See B.F. Goodrich, 72 F.3d at 1582, 37 USPQ2d at 1318. This suggestion or motivation may be derived from the prior art reference itself, O'Farrell, 853 F.3d at 902, 7 USPQ2d at 1680, from the knowledge of one of ordinary skill in the art, or from the nature of the problem to be solved. Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc., 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1630 (Fed. Cir. 1996); see also Motorola, Inc. v. Interdigital Tech. Corp., 121 F.3d 1461, 1472, 43 USPQ2d 1481, 1489 (Fed. Cir. 1997) ("[T]he suggestion to combine may come from the prior art, as filtered through the knowledge of one skilled in the art."). Determining whether there is a suggestion or motivation to modify a prior art reference is one aspect of determining the scope and content of the prior art, a fact question subsidiary to the ultimate conclusion of obviousness.

In the present case, the examiner has failed to indicate and provide evidence of the specific understanding or principle within the knowledge of a skilled artisan, explicit or implicit, that would have motivated one with no knowledge of appellants' invention to

arrive at the claimed invention. In re Rouffet, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457 (Fed. Cir. 1998). In re Kotzab, 217 F.3d 1365, 1369-70, 55 USPQ2d 1313, 1316 (Fed. Cir. 2000). As argued by appellants, the examiner has not provided the requisite reason, suggestion or motivation to one of ordinary skill in the art to modify the disclosure of Murphy, such as by establishing that the claimed Tg and wetting power are result effective variables. The examiner has also failed to establish that the claimed Tg and wetting power were known to be, in fact, inherent characteristics of the compositions of Murphy.

On the facts and record before us, we find that the examiner has not established a prima facie case of obviousness, as the examiner has failed to provide supporting prior art evidence of Tg or wetting power, to satisfy the claims. The rejection of the claims in view of Murphy is reversed.

Murphy and Russell

The examiner acknowledges that Murphy does not teach the PVP polymers and copolymers having the same molecular weight range as the instant invention. The additional deficiencies of Murphy are discussed above.

Russell is relied on for its disclosure of permanent waving of hair using film forming polymers and solvents, such as ethanol, to facilitate waving. The examiner finds the polymers of Russell to be of the same molecular weight range, and arguably, the same Tg and flow rate as the claimed invention. Answer, page 4.

Alternatively, the examiner finds that while Russell alone does not teach the claimed flow rates of the solids and of the fluid propellant, the examiner suggests that "it would have been obvious for a skilled artisan to employ the polymers of Russell et al a film forming polymers in a hair conditioning composition because the molecular weights of the polymers of Russell et al. are in the same range as claimed in the instant invention. Therefore one would expect the polymers to have the same Tg and flow rates and also obtain the same hair holding and styling properties as in the instant claims." Answer, page 5. Further, according to the examiner, "although Russell et al. does not exactly teach aerosol, their teachings include spraying the hair waving polymer stored under pressure in a container having valves which is obviously an aerosol device." Answer, page 5.

In response, the appellants similarly argue that Russell discloses a laundry list of polymers, not all of which have a Tg which falls within the claimed range. In particular, appellants point out that poly(vinylacetate) and poly(ethylacrylate) fall below appellants' claimed Tg, yet are within the same molecular weight range. Appellants argue that this fact rebuts the Examiner's assertion that the claimed Tg would be met because Tg is an inherent property of the polymers. Brief, page 15. According to appellants, the "Tg depends on the type of polymer not only its molecular weight," and thus "the polymers of the prior art would not necessarily possess the same Tg, notwithstanding the fact that the molecular weights could be similar." Id.

Appellants also point out that Russell is directed to a hair waving composition and those of skill in the art would not look to hair waving compositions to solve problems associated with temporary hair fixing. Brief, page 17. Appellants contend that the only way the examiner could arrive at the determination of obviousness is hindsight reconstruction upon viewing appellants' disclosure. Brief, page 18.

As discussed with regard to Murphy above, in our view the examiner has failed to provide evidence in the cited references of the claimed Tg and wetting power, and the examiner has also failed to provide the requisite motivation to combine the Murphy and Russell. On the facts and record before us, we find that the examiner has not established a prima facie case of obviousness, as the examiner has failed to provide supporting prior art evidence of Tg or wetting power, as claimed. The rejections of the claims over Murphy in view of Russell, and also over Russell alone are reversed.

35 U.S.C. 103

Claims 1-21 stand rejected under 35 U.S.C. 103 for obviousness in view of Bolich.

Bolich discloses a hair styling mousse composition containing hair setting polymers, a hair conditioning silicone, ethanol and a propellant. The examiner finds that while "Bolich does not teach the exact flow rates of the solids and of the fluid/propellant, the polymers of Bolich have the same molecular weights as the instant invention. Therefore one would expect the polymers to have the same Tg and flow


rates and also obtain the same hair holding and styling properties as in the instant claims." Answer, pages 5-6.

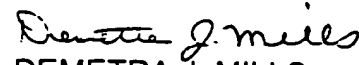
The examiner finds that the hair setting polymers of Bolich read on the instant polymers, including their molecular weights and are directed to achieving the same end result, hair fixing.

On the facts and record before us, we again find that the examiner has not established a prima facie case of obviousness, as the examiner has failed to provide supporting prior art evidence of Tg or wetting power, as claimed. The rejections of the claims over Bolich is reversed.

No time period for taking any subsequent action in connection with this appeal
may be extended under 37 CFR § 1.136(a).

REVERSED


DONALD E. ADAMS
Administrative Patent Judge


DEMETRA J. MILLS
Administrative Patent Judge


ERIC GRIMES
Administrative Patent Judge

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Appeal No. 2001-1993
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